





Wildfire Evacuation Centers in Australia

Home As a Temporary Place

Team **HOME SWEET HOME**

Team Members:

JIN Ye, Freda Yu Bingjie, WU Yuwei, LUO Yunjing

Prof. Kaja Tooming Buchanan, Ph.D.

Experience Design: Interactions and Environments

Spring Semester 2022

Course Code: 2270033

OUR TEAM



••••••••••

JIN YE (KIM)

Philosophy (Psychology)

from Tongji University



Environment Design
from Tongji University

LUO YUNJING (SHAWN)



Global Challenge and Sustainable Development

FREDA YU BING JIE

from University of Applied Arts Vienna



EXPERIENCE DESIGN 2022

Design History and Theory
from Tongji University

WU YUWEI (VIVI)

Table of Contents

| Introduction | User Profiles | Potential Solution |
|--|---|---------------------------------------|
| Design challengeMethodsInterpretation MapDefinition | Contexts Role of Evacuation Shelter Primary, Secondary and Tertiary Users | Significance |
| | Evidence of Issues | |
| General Purpose | Interaction - people to people Interaction - people to environment Emotion Cognition | Timeline |
| Theoretical Framework | Evidence of Mapping | List of Literature List of Figures |
| | Areas of Issues | |
| Strategic Framework | Problem statement | Appendix |

EXPERIENCE DESIGN 2022



Introduction

The world is becoming increasingly volatile with a **myriad of crises** happening all around the globe. Both man-made and natural catastrophes are destroying lives and livelihoods in these **desperate situations**. Many of these events give rise to **large displaced populations** who must relocate to temporary homes that are **considered less desirable**. To improve this upsetting situation, it is critical to **examine the occupants' perception** of such places and to **explore its transformative potential**.

This project is part of the Experience Design course 2022 in Tongji University, Shanghai, taught by Professor Kaja Tooming Buchanan. In the project, we focuses on the evacuation centers due to the wildfires disasters in Australia.



Design Challenge (by Kaja Tooming Buchanan)

How can people maintain their everyday life with dignity and create meaningful experiences in places like shelters that are their "temporary homes" for a certain period of time, where the transformative process of becoming to be something else has challenged the whole idea of being home.

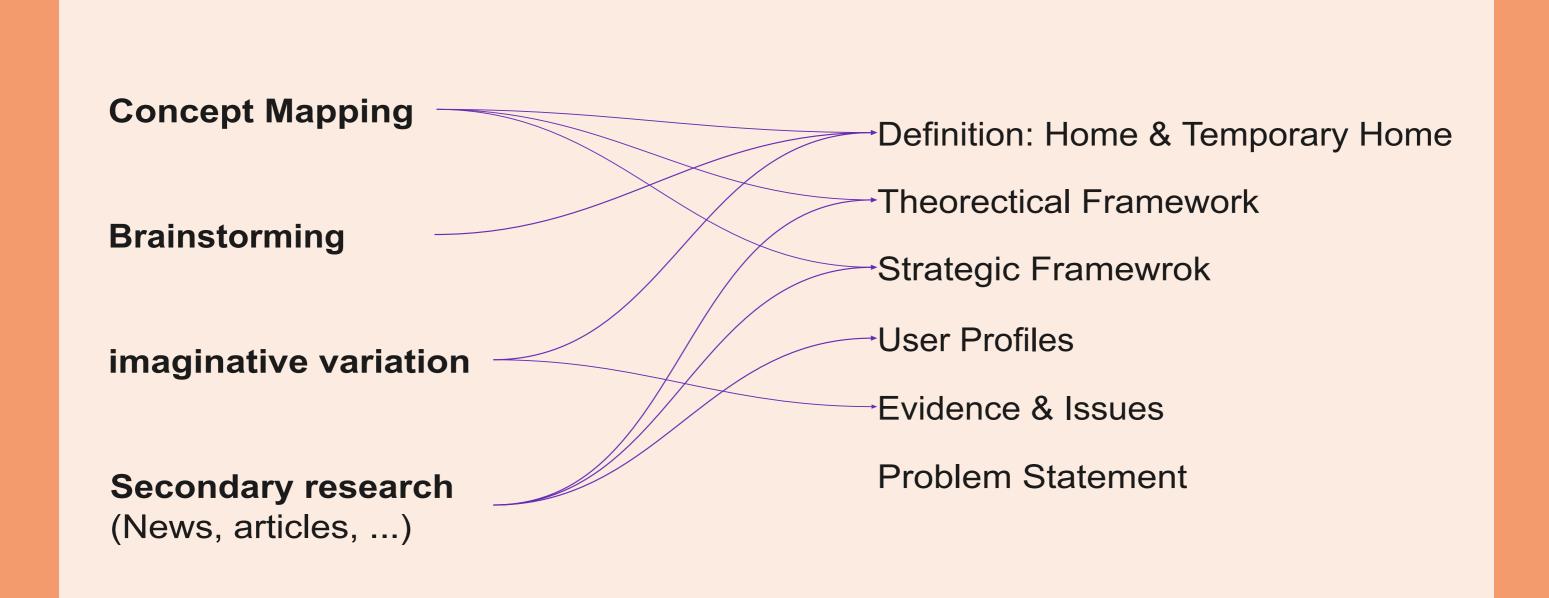
Goal: To potentially create "An Experience" from an inchoate experience **FULFILLMENT** DEVELOPMENT **INCEPTION** Phase of Development Phase of Development Phase of Development LEAVE-LEAVE-**MAINTENANCE** INITIATION **MAINTENANCE MAINTENANCE TAKING TAKING** Transforming the idea of "being home" Shift of Environment Practical Intellectual **Emotional** Experience Experience Experience Shift of Environment Temporary Home New Home / Old Home Home

Maintain their everyday life with dignity and

create meaningful experiences.

Methods

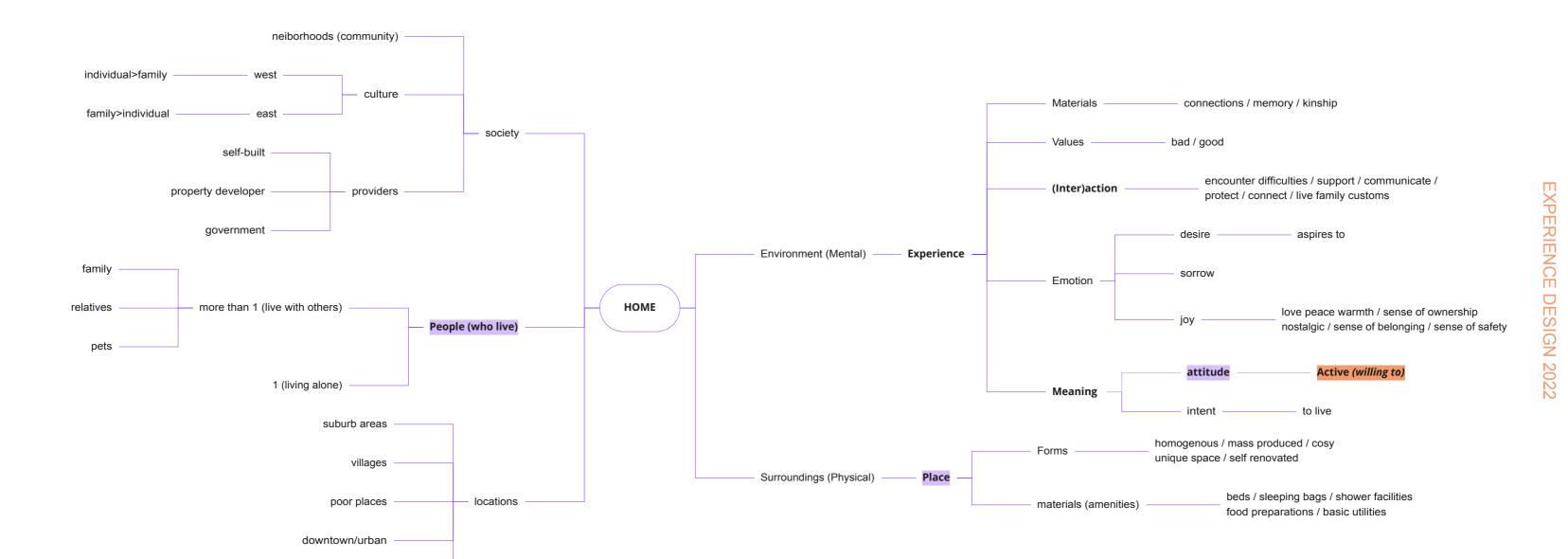
EXPERIENCE DESIGN 2022



Interpretation Map

safe areas

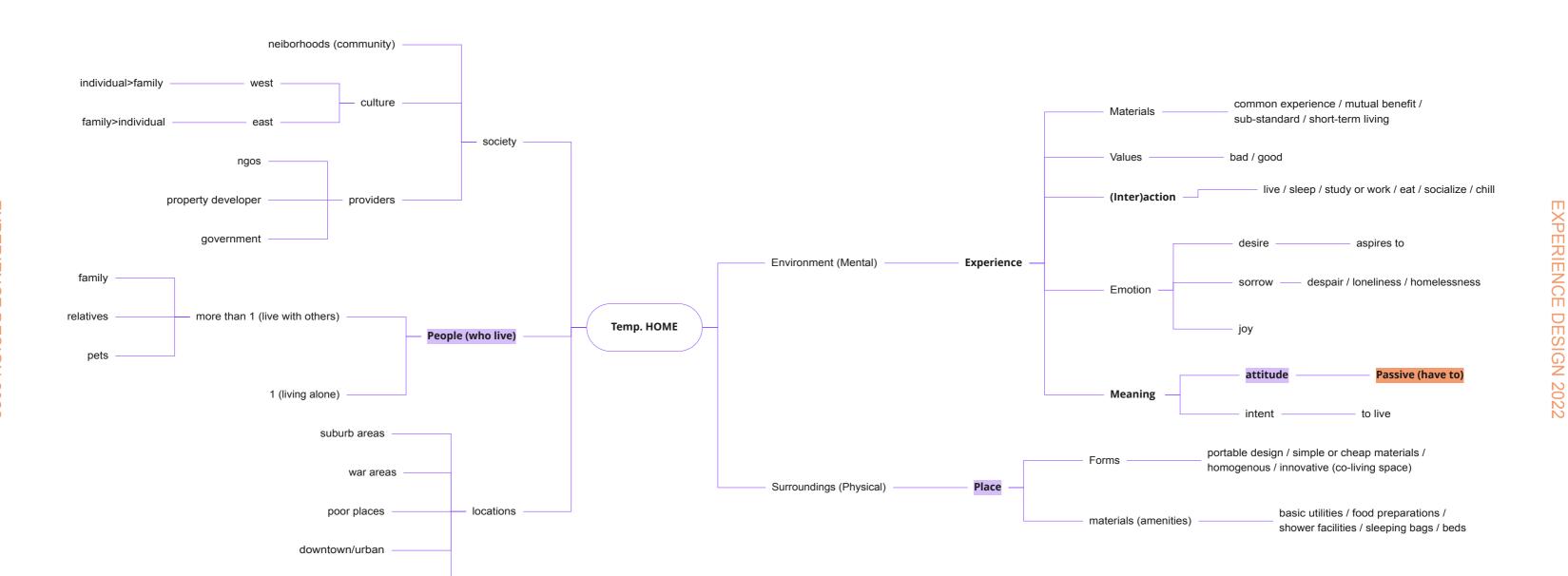
Home



Interpretation Map

unsafe areas

Temporary Home



Defining Method

Imaginative variation (phenomenology)

EXPERIENCE DESIGN 2022

HOME

A Place where people live with an active attitude*, usually associated with positive emotions and has enough living facilities.

* which means people are willing to live in the place

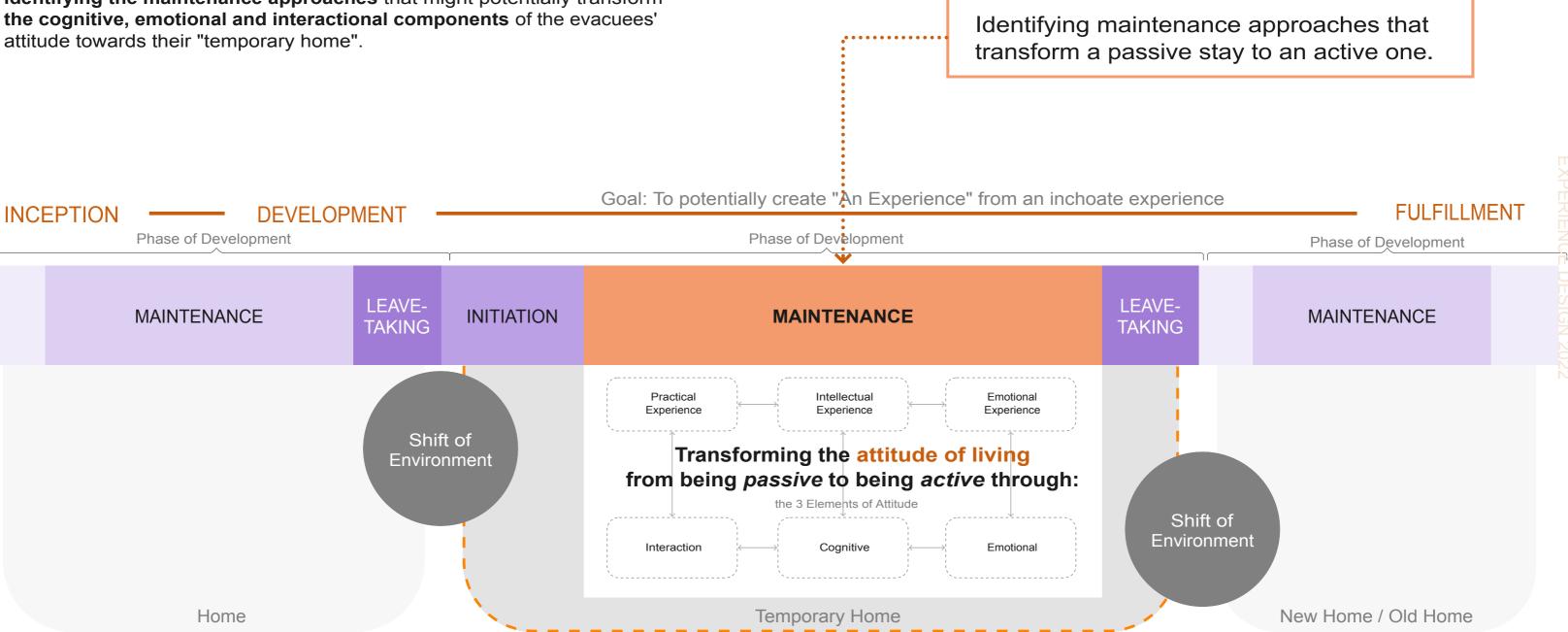
TEMPORARY HOME

A **Place** where **people live with a passive attitude***, usually associated with negative emotions and provides limited living facilities.

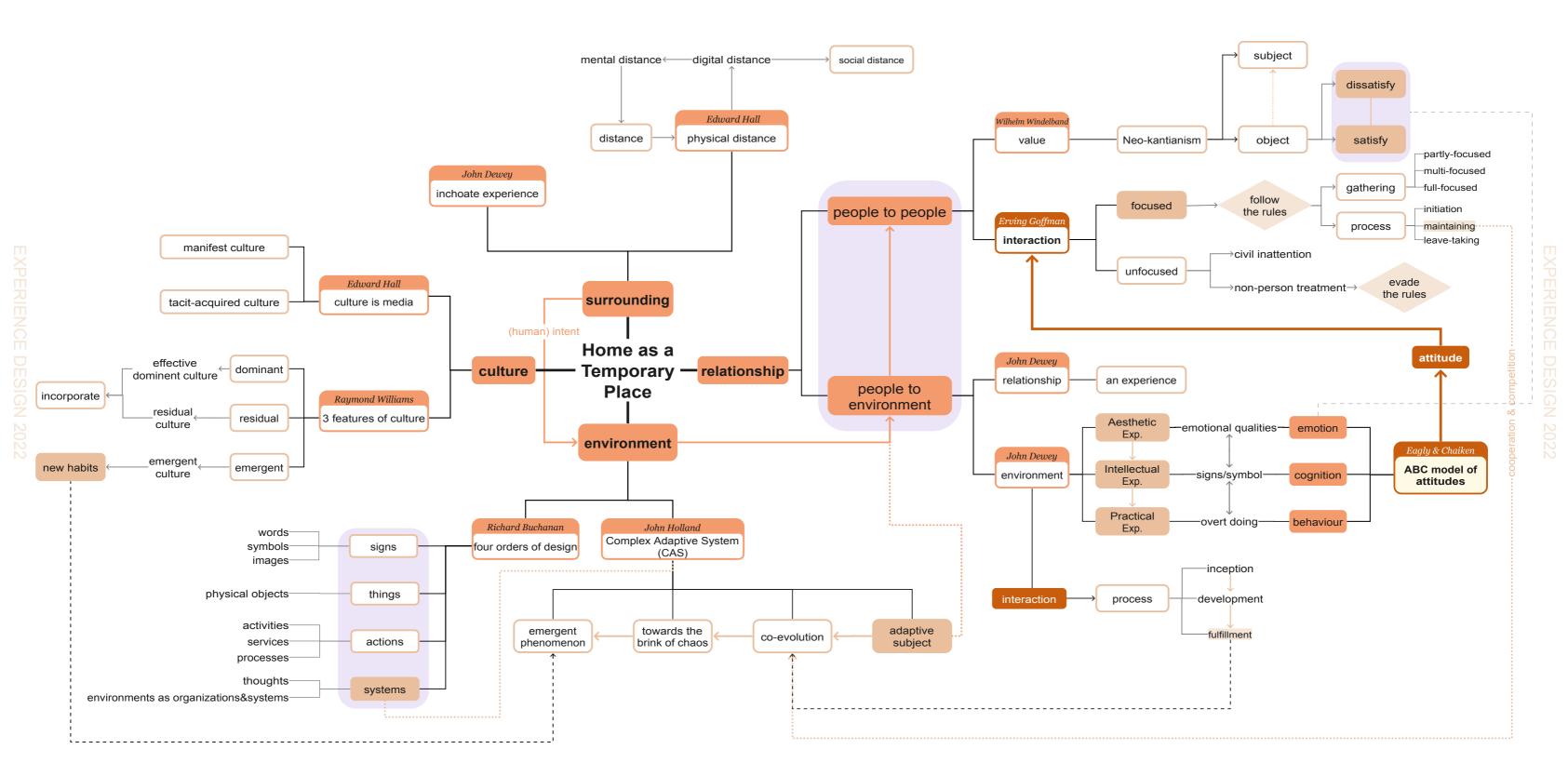
* which means people are have to live in the place

General Purpose

To explore how to transform **the attitude of living** from a passive one to an active one for occupants in Australian bushfires evacuation centers, through **identifying the maintenance approaches** that might potentially transform **the cognitive, emotional and interactional components** of the evacuees' attitude towards their "temporary home".

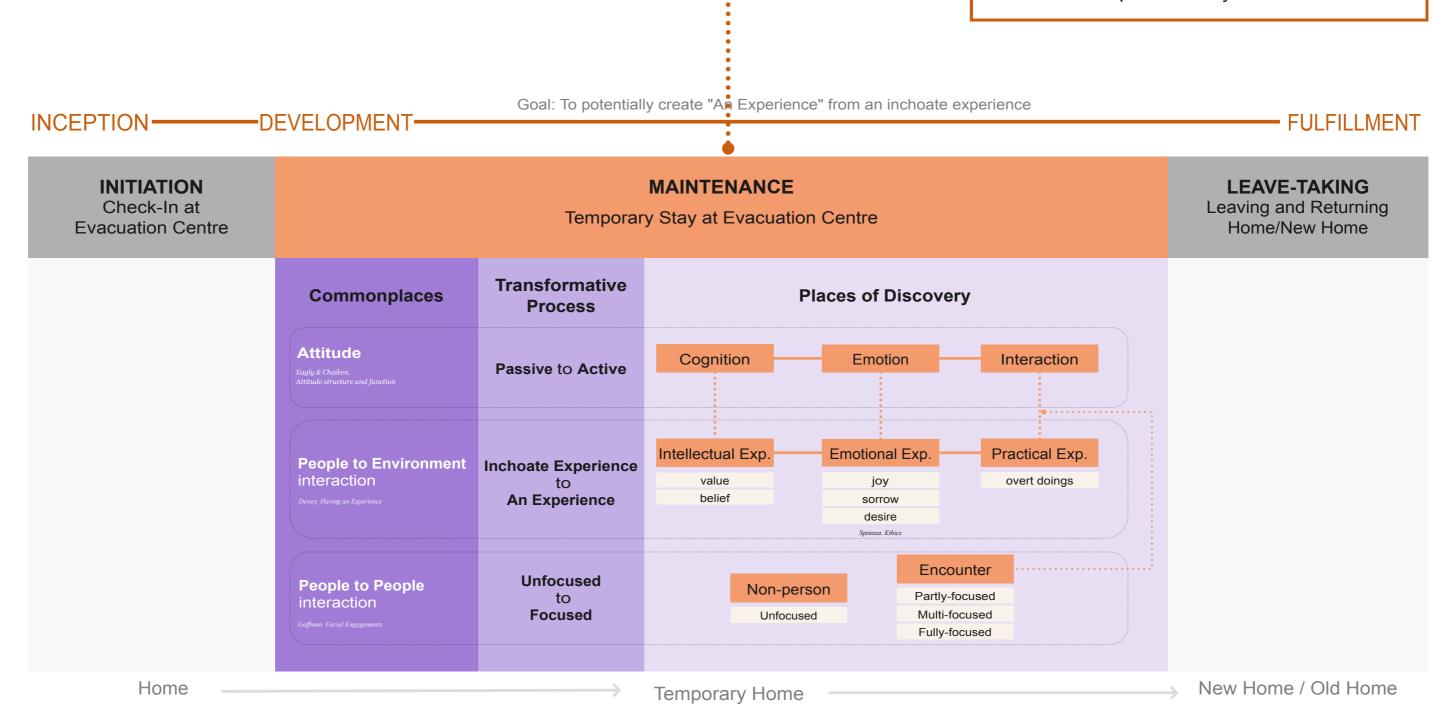


Theoretical Framework





Identifying maintenance approaches that transform a passive stay to an active one.



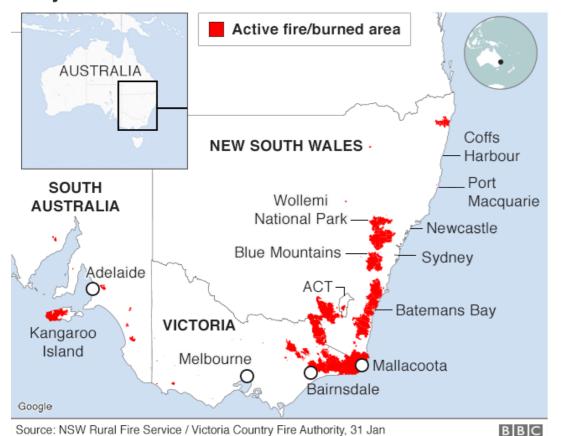
Contexts - Bushfires and Evacuation Center

Australian Bushfire

Widespread and regular occurrence which shaped the ecosystem of the continent. The fires cause loss of life and property damage. It usually happens during seasons with high temperature, low humidity and strong wind.

The states of New South Wales and Victoria are the worst hit areas.

Major bushfires in Australia



Australian Bushfire Evacuation Centers

The displacement triggered by the bushfires has destabilised the lives of many of those forced to leave their homes, not only affecting their housing conditions but also disrupting their livelihoods, access to education, security and health.

Evacuation and Relief centers initiated by charity organisations were usually established to provide people with basic needs.

State government agencies also set up services to provide emergency accommodation for those displaced. Furthermore, community-based help programmes are also in place for further help.

EXPERIENCE

DESIGN 2022

| | ACT | NSW | NT | QLD | SA | TAS | VIC | WA |
|--------------------------------|-----|-----|----|------------------------------------|----|-----|-----|----|
| Evacuation centre | ✓. | ✓ | 1 | 1 | | 1 | | 1 |
| Relief centre | | | | | 1 | | 1 | |
| Neighbourhood Safer Place | | 1 | | 1 | | | 1 | |
| Nearby Safer Place | | | | | | 1 | | |
| Safer Place | | | | | | | | 1 |
| Place of Refuge | | | | 1 | | | | |
| Community Fire Refuge | | | | | | | 1 | |
| Emergency or cyclone shelter | | | 1 | Limited to public cyclone shelters | | | | |
| Bushfire Safer Place | | | | | 1 | | | |
| Bushfire Last Resort Refuge | | | | | 1 | | | |

Rol

EXPERIENCE DESIGN 2022

Role of Evacuation Shelter

In an evacuation, the primary and secondary needs of affected people include:

| Primary needs | Secondary needs |
|--|--|
| Safety of people and property | Maintenance of dignity |
| Shelter | A sense of control over one's destiny and a sense of order and belonging |
| Food and clothing | Privacy |
| Adequate rest and sleep | Access to accurate and timely information |
| General physical and emotional wellbeing | Attending to urgent personal practical matters |

User Profile - Users

Breakdown of different people in an Evacuation Center



Evacuees:

people who are temporarily displaced as a result of a threatening or real hazard.

Self sheltering:

people who source their own shelter solutions outside of the designated shelters in response to a threatening or real hazard.

Centre residents:

people accessing an evacuation centre for basic needs and services. They will usually be registered, have completed an intake form and be sleeping on site.

Centre day guests:

people temporarily accessing an evacuation centre for basic needs and services, such as meals and information. They may be registered but are not sleeping on site.

Centre visitors:

unaffected persons who may be temporarily providing support services such as financial or mental health support or viewing the operations of the centre (e.g. media and VIPs).

Primary User Profile

Centre Residents - Adults

People accessing an evacuation centre for basic needs and services. They will usually be registered, have completed an intake form and be sleeping on site.

Oueensland Evacuation Handbook 2017, Australian Red Cross

Age: Adults (Over 18, 80%)

Gender: Male(45%) /Female(52%)

Location: Wildfire vacuation centers in New South

Wales of Australia

Situation: During Wild Fire

Condition: Living in an evacuation centre

Needs:

- basic needs and services
- Housing
- Work

Different needs of men and women

- Women are more likely than men to evacuate early in time than their counterpart when evacuating ahead of a bushfire.
- Women were more likely to attribute their evacuation decision to the government's advice to evacuate, while men are more likely to say it was their own decision



EXPERIENCE DESIGN 20

Secondary User Profile

Centre Residents - Children

People accessing an evacuation centre for basic needs and services. They will usually be registered, have completed an intake form and be sleeping on site.

Queensland Evacuation Handbook 2017, Australian Red Cross

Age: Under 18

Gender: Male/Female

Location: Wildfire vacuation centers in Australia

Situation: During Wild Fire

Condition: Working in an evacuation centre

Needs: Specific requirements in terms of

play areas

• adequate beds in shelters

• physical and mental healthcare.

schooling



EXPERIENCE DESIGN 2022

Tertiary User Profile

Volunteers

People who work for evacuation center and provide services and comport for the residents and day guests.

Queensland Evacuation Handbook 2017, Australian Red Cross

Age: All

Gender: Male/Female

Location: Wildfire vacuation centers in Australia

Situation: During Wild Fire

Condition: Working in an evacuation centre

Needs: Conducive working environment



Interaction - people to people

To investigate people to people interactions (especially occupants to occupants or occupants to volunteers) in an evacuation center which influence their attitudes towards the place.



and crises, people in the

The crises posed challenges to people who have to deal are threatened in life, it takes relationship established between us and animals.

> While pre-existing also new forms of acted upon the

are affecting how people others. In most cases, it undermines the expected we are used to pre-pandem

While most people had a preexisting mental image of the evacuation centers from media. outlook by seeking an alternative perspective in such desperate tuations. To feel reconciled or just the feeling when one is physically simply accept the situation seems to shows that the cognitive grateful feeling in people nderstanding of a place is easily changeable when one feel it maintain the mental wellbeing of the evacuees. However, this approach is people to be more resilien and **positive** in the Conclusion Most people have negative beliefs about an evacuation center, which even being human cognition of a place can be place, events that take place in an nment and the mental resilience one has. While cognition influences human attitude, its fluctuating nature allows for transformative interventions to reshape human perception Conclusion

To investigate the evacuees' cognitions in an evacuation center which constitute their attitudes towards evacuation centers.

Cognition

about regional

While it is evident that the sense of

community helped those in need to

get through the crisis, there are

many **challenges** faced by the evacuees during their interactions with others. Such problems include

unfair treatment, social distancing from others and the

difficult situation with animal

handlings. The positive and

negative interactions the evacueer have offset each other and

eventually lead to a dull and

unpassionate attitude towards an

evacuation centre stay.

Evidence Mapping

Conclusion

₹ CPR News At a Lafayette shelte anxious Marshall fire evacuees worry and await word on their homes and futures

Desert Sun.

For residents flee Southern Californevacuation cente be 'jarring' yet 'reassuring'

Conclusion Most evacuees experience fear and anxiety because of uncertainty about property safety and future nodation during their stay. While this is understandable from a disaster point of view, it affects human reactions and actions irrationally, i terms of evacuation, returning and

Emotion

mmon in evacuees. While some people breakdown in such

ituations, others stay resilient

different approach towards movin

situation, the most common feelings in such situation are

fearfulness, anxiety and neertainty. Such emotions might

have been heightened because of

lives in.

Even when faced with

dangerous situation as such, many are still reluctant to step

out of their comfort zone due to fear and the feeling of

uncertainty. While this sounds like an irrational reaction, it

shows how much negative

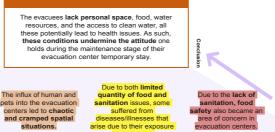
emotions can have an impact of human's decision making.

To identify characteristics about the residents' emotions in an evacuation center which influence their attitudes towards evacuation centers.



EXPERIENCE

DESIGN





Interaction - people to environment

To investigate people to environment interactions in an evacuation center which influence their attitudes towards the place.

Due to the limited

To investigate people to environment interactions in an evacuation center which influence their attitudes towards the place.

Sources of Evidence in Australia

For representational purposes only

theguardian

Encircled by flames: the sleepy New South Wales towns in the bushfire crisis



'It's Like Prison': What Life Looks Like Inside An **Evacuation Centre**

As the fire edged closer to them, volunteers organised the evacuation centre with the bowling club and almost immediately people began trickling in.

Heriot, her partner Rodney and their dog were among the 80-odd people, dogs, birds, cats and goldfish crowded into the auditorium of the Tuncurry bowling club on Tuesday night.

"We're a bit of a menagerie at the moment and it looks a bit like Noah's ark out the back," the manager, Terry Green, told Guardian Australia earlier in the day.

community-style, 'all walks of life' kind of prison setup with no security. Which felt highly volatile, because a lot of the rough sleepers we have in town, would be sat by the entry, and it was just a chaotic melting pot. You'd be talking, and they'd have dingos, they'd have pitbulls, all kinds of stuff right there at the front door, ready to kick off at any moment."

"It was like prison," said Danny, a Murwillumbah resident, "It was a

Sources of Evidence in Other Places

For representational purposes only



PHOTOS: At a Lafayette shelter, anxious Marshall fire evacuees worry and await word on their homes and futures

Child evacuees face unseen threats after Typhoon Odette

Siblings George and Cathy Zheng, 8 and 10, play on their cot at the YMCA Arapahoe Center, an evacuation center for those affected by the Marshall fire, in Lafayette, Colorado on Friday, December 31, 2021. Their family's home is Superior is safe. "There is no enough bed in the center, so my parents and I have to sleep on the floor." said Cathy.

Eloise Carden, left, and his aunt Ro Rianoshek transport space heaters from Xcel Energy for those affected by the Marshall fire at the YMCA Arapahoe Center, an evacuation center, in Lafayette, Colorado on Friday, December 31, 2021. Power outages and water boiling advisories are affecting much of the area.

Monilyn is not sure if Randel is moderate or severely malnourished. She also fears that his health might have declined during his stay in the evacuation centre.

... Cases of acute gastroenteritis have been reported in three villages in Cagdianao and in five of the seven municipalities of Dinagat Islands. The provincial disaster risk reduction and management office reported 123 cases of gastroenteritis and expects outbreaks in the coming days due to poor access to clean drinking water.

Evidence of Issues

Interaction - people to environment

Due to the **limited resources** in short notices, the facilities provided to evacuees are often insufficient. This led to lower living quality perceived by the occupants.

> The influx of human and pets into the evacuation centers led to chaotic and cramped spatial situations.

Due to the lack of sanitation, food safety also became an area of concern in evacuation centers.

Due to both **limited** quantity of food and sanitation issues, some suffered from diseases/illnesses that arise due to their exposure to such risks.

Conclusion

EXPERIENCE

DESIGN 2022

The evacuees lack personal space, food, water resources, and the access to clean water, all these potentially lead to health issues. As such, these conditions undermine the attitude one holds during the maintenance stage of their evacuation center temporary stay.

Interpretation **Analysis** Conclusion

"You can't sit here and do nothing, you are out there to help people," Lyn says. The trio estimate at least 4,000 sandwiches have been made. In Ritchie from Za's Mobile Coffee has made at least 900 free cups of coff
"The community supports us all year round and if we can pay that back a
little bit that's what we should be doing," he says.

Almost 900 people registered at the Evacuation Centre, it was a rollercoaster of every emotion, supported by people with golden hearts – people who will be forever remembered for their contribution.

theguardian

Encircled by flames: the sleepy New South Wales towns in the bushfire crisis

As the fire edged closer to them, volunteers organised the evacuation centre with the bowling club and almost immediately people began trickling in.

Heriot, her partner Rodney and their dog were among the 80-odd people, dogs, birds, cats and goldfish crowded into the auditorium of the Tuncurry bowling club on Tuesday night.

"We're a bit of a menagerie at the moment and it looks a bit like Noah's ark out the back," the manager, Terry Green, told Guardian Australia earlier in the day.

Indigenous Australians experienced racism and unfair treatment during the catastrophic "Black Summer" bushfires, according to new research. It is found that First Nations communities suffered more than other groups

"Aboriginal people did go to the evacuation centers only to be turned away

because the staff there said we've helped enough of your people today; we've

because the start there same were neighbor down to your peoples today, we we helped enough of your community members," Williamson said. "When you speak to people who are directly affected and you ask them why is that these things are happening to you, all of them connect it to historical racism and

colonization. The most damaging instance that happens for people who have lived through these disasters and are still recovering is feeling like they have

Over two-thirds of respondents who evacuated stayed with family or friends (69 per cent), and smaller proportions stayed at an evacuation

(18 per cent) mentioned staying in cars/utes, with neighbours, and at schools or workplaces; some reporting they stayed in cars because

When asked about how owning pets influenced evacuation, significant

proportions of the sample strongly agreed or agreed that having pets

decision about whether to evacuate (72 per cent), increased the stress

of evacuation (68 per cent), and the mode of transport they used (66

made to and from home during evacuation (54 per cent) and slowed

per cent). In addition, having pets influenced the number of trips

influenced where they went after evacuation (81 per cent), their

shelter (five per cent), hotel/guest house (four per cent) or showground/campsite (three per cent). Those who stayed elsewhere

because of failures by the authorities during the crisis.



Report Outlines Racism Toward Aboriginal Australians During Worst **Bushfires on Record**





The preparedness and evacuation behaviour of pet owners in emergencies and natural disasters

WINEWS

No-net evacuation rules putting lives at risk

Pet ownerships influence one's evacuation options

down the speed of evacuation (43 per cent).

evacuation shelters wouldn't accept pets.

"But, ironically, in not allowing pets into evacuation centres, people's lives are being put at risk. We simply have to include pets in evacuation procedures

Dr Seksel says the natural disasters over the past month in Oueensland have provided many examples of people refusing to leave their homes when told to evacuate because they could not take their pets with them.

CPR News

PHOTOS: At a Lafayette shelter, anxious Marshall fire evacuees worry and await word on their homes and futures

Many being served at the evacuation center said volunteers were extremely helpful, kind and ourceful there.



MailOnline

in town decimated by bushfires REFUSES to let dog owners inside because 'it's where they serve food'

Club acting as an evacuation centre in town decimated by bushfires refuses to let dog owners inside - because 'it's where they serve food'. Club Old Bar, about 16 kilometres east of Taree on the Mid North Coast, is hosting evacuees as bushfires ravage the state But pet owners staying at the club on Saturday were told they are not allowed inside the venue with their dogs.

The Press Democrat

Public shelter space limited for Sonoma County wildfire evacuees during pandemic

The few people inside the fairgrounds building were assigned a 100square-foot space to maintain social distancing. Packaged snacks were sanitized, and meals would be brought directly to their space, rather than the typical chow line. Masks were required at all

New Times

Cal Fire and Red Cross rethink evacuation centers, base camps as fire season collides with COVID-19

"Where we've made our changes is at base camp, where everybody comes to have a meal, have briefings, make plans, and pick up supplies," he said. "All these areas are now restricted in how ma people can come in. There's hand sanitizing, masks, and 6-foot

The new rules mean more lightly attended daily incident briefings and shorter, less social meal times.

There's 6-foot distancing sitting at the meal tables. They can't just sit next to their buddies," Orozco explained. "There's no longer any sitting around and chatting after you're done eating. You have to finish eating and quickly leave so that section can be sanitized for the next person.'

Evidence of Issues

Interaction - people to people

When faced with challenges and crises, people in the community come together to help the needy through volunteering or donation.

The crises posed challenges to people who have to deal with animals. When human are threatened in life, it takes great responsibility to also care for the intimate relationship established between us and animals.

While pre-existing discrimination are still prominent, there are also new forms of unfair treatment acted upon the evacuees.

Social Distancing concerns are affecting how people perceive interaction with others. In most cases, it undermines the expected level of communication that we are used to pre-pandemic.

Conclusion

While it is evident that the sense of community helped those in need to get through the crisis, there are many challenges faced by the evacuees during their interactions with others. Such problems include unfair treatment, social distancing from others and the difficult situation with animal handlings. The positive and negative interactions the evacuees have offset each other and eventually lead to a dull and unpassionate attitude towards an evacuation centre stay.

EXPERIENCE DESIGN 2022

EXPERIENCE DESIGN 2022

To identify characteristics about the residents' emotions in an evacuation center which influence their attitudes towards evacuation centers.

Sources of Evidence in Australia

For representational purposes only



Shock, fear and sadness grip Australia's 'bushfire refugees'

sor, and corinece, or in, sustralia, a hushifur, rafunase



Australian Emergency Manual Disaster Recovery

https://reliefweb.int/sites/reliefweb.int/files/resources/D88AEE7788867E49C1258C3A002CD1EF-ems manual-1996.pdf

For many, the future is riddled with uncertainty: about whether their homes still stand, when they can return and—with months of summer still to go—about when all this will end. Many are facing this uncertainty while dealing with the trauma of what they have lived through. Thousands of Australians forced from their homes by rampaging bushfires now find themselves stuck in makeshift camps, fearful for the future and turned refugees in their own country.

The effects of disaster are very real. Strong feelings may arise when the disaster experience is talked about. Increased worry may interfere with day-to-day living and the experience may leave people affected by a disaster shaken and worried about the future. 'Getting back to normal' can be difficult after an experience of this kind. Everyone's reactions to disaster will not be the same, however, detailed below are some of the common feelings.

Sources of Evidence in Other Places

For representational purposes only

San Francisco Chronicle

Fire evacuees steer clear of shelters, seek isolation during pandemic

os://www.sfchronicle.com/california-wildfires/article/Fire-evacuees-during-pandemic-steer-clear-of-00184.php#

"This is unprecedented," Adrio said. "People are afraid, people never want to leave their home, but people need to take this seriously. We're in the process of saving lives. Don't be afraid of the support that's out there for you."

CPR News

PHOTOS: At a Lafayette shelter, anxious Marshall fire evacuees worry and await word on their homes and futures



Sharon, who preferred to go by her first name, reads on her cot at the YMCA Arapahoe Center, an evacuation center for those affected by the Marshall fire, in Lafayette, Colorado on Friday, December 31, 2021. She wonders about her cat, Moose, who ran off as they were evacuating, and about her and her partner's house. "We don't know what we're going home to...What if we don't have a house?"



Forrest Smith of Louisville rests while moving spots in search of a quiet area at the YMCA Arapahoe Center, an evacuation center for those affected by the Marshall fire, in Lafayette, Colorado on Friday, December 31, 2021. Smith thinks his house of 30 years is likely gone and is figuring out what to do next.



Sarah Hartley of Fort Collins makes her bed at the YMCA Arapahoe Center, an evacuation center for those affected by the Marshall fire, in Lafayette, Colorado on Friday, December 31, 2021. Hartley, who used to live in the area and had parked her car nearby before going out of town for the holidays, rushed straight to the shelter after landing at the airport back in Colorado. She does not yet know if her car is okay.



Meredith Manion watches snow fall from the YMCA Arapahoe Center, an evacuation center for those affected by the Marshall fire, in Lafayette, Colorado on Friday, December 31, 2021. Manion, who lives in a retirement community, panicked and rushed out of her home without grabbing much. "It's scary, you know. There's one thing that we can't have no control over and that's fire. Man just tries to control everything, but fire...it's scary."

Evidence of Issues

Emotion

EXPERIENCE

DESIGN 2022

Feeling desperate and helpless is common in evacuees. While some people breakdown in such situations, others stay resilient and try to move forward. The different approach towards moving on are due to the innate human nature of resilience.

Similar with other disastrous situation, the most common feelings in such situation are fearfulness, anxiety and uncertainty. Such emotions might have been heightened because of the makeshift surrounding that one lives in.

Even when faced with dangerous situation as such, many are still reluctant to step out of their comfort zone due to fear and the feeling of uncertainty. While this sounds like an irrational reaction, it shows how much negative emotions can have an impact of human's decision making.

Conclusion

Most evacuees experience fear and anxiety because of uncertainty about property safety and future accommodation during their stay. While this is understandable from a disaster point of view, it affects human reactions and actions irrationally, in terms of evacuation, returning and future- planning decisions and attitudes.

Interpretation Analysis Conclusion

Goal of Investigation:

To investigate the evacuees' cognitions in an evacuation center which constitute their attitudes towards evacuation centers.

Sources of Evidence in Australia

For representational purposes only



Tathra Bushfire Evacuation Centre closes a new chapter of generosity "People have turned up from Canberra and Sydney with boot loads of groceries ... – unbelievable," Lisa says.

"What a wonderful community spirit, we have met so many wonderful people," Denise says.

https://aboutregional.com.au/tathra-bushfire-evacuation-centre-closes-a-n chapter-of-generosity/



'It's Like Prison': What Life Looks Like Inside An Evacuation Centre

tps://www.vice.com/en/article/epx8g7/flood-victims-say-life-inside-an-evacuationentre-is-like-prison "It was like prison," said Danny, a Murwillumbah resident, "It was a community-style, 'all walks of life' kind of prison setup with no security.

Sources of Evidence in Other Places

For representational purposes only

CPR News

At a Lafayette shelter, anxious Marshall fire evacuees worry and await word on their homes and futures

Volunteer Priyanka Harish, left, gives Sharon a slice of pizza at the YMCA Arapahoe Center, an evacuation center for those affected by the Marshall fire, in Lafayette, Colorado on Friday, December 31, 2021. Many being served at the evacuation center said volunteers were extremely helpful, kind and resourceful there.

https://www.cpr.org/2022/01/01/photos-at-a-lafayette-shelter-anxious-marshall-vacuees-worry-and-await-word-on-their-homes-and-futures/

Desert Sun.

For residents fleeing Southern California fires, evacuation centers can be 'jarring' yet 'reassuring'

https://www.desertsun.com/story/news/2018/11/10/southern-california-fires-red-cross-providing-reacross-state/1948767002/



Fire evacuees steer clear of shelters, seek isolation during pandemic

"Walking into it as an evacuation center was something else. You see evacuation centers on TV, but walking in was jarring. Thank God we have it, though."

Bryan Lewitt said a local Jewish Day School already burned to the ground, his daughter's summer camp was besieged and his brother's home was very close to being engulfed by flames. "But it was reassuring to walk into the shelter and see that the Red Cross is really working to provide comfort for people, the shelter is a very somber place, with many elderly and disabled individuals, but they are being provided comfort."



seuces from a wildfire rest
cots and warm themselves
fer blankets supplied by the
l Cross in the Taft Charter.
th School gymnasium in the
odland Hills section of Los
egles on Friday, Nov. 9,
8. Portions of Southern
florrial remain under siege
wo large brush fires are
attening numerous



Volunteers prepared sandwiches for first responders while others worked in kitchen to make warm meals for

"I'm camping in the Prius!" laughed Cheryl Jarvis, 69, as she rearranged the pillows in her Toyota Prius in the parking lot of the Vacaville Community Center. "It's not real comfortable, but I'm so tired it didn't matter."

_ .

Evidence of Issues

Cognition

EXPERIENCE

DESIGN 2022

Evacuees at the centers are aware of the amount of help they received from the community and showed their appreciation too. The grateful feeling in people might potentially spur people to be more resilient and positive in the evacuation center stay.

While most people had a preexisting mental image of the
evacuation centers from media,
the feeling when one is physically
in one can be very different. This
shows that the cognitive
understanding of a place is easily
changeable when one feel it
physically.

Some evacuees adopt a more positive outlook by seeking an alternative perspective in such desperate situations. To feel reconciled or just simply accept the situation seems to be the helpful attitude that generally maintain the mental wellbeing of the evacuees. However, this approach is unlikely to be found in younger people.

Conclusion

Most people have negative beliefs about an evacuation center, which even being described as "like prison".

However, The human cognition of a place can be overwritten by their physical presence in a place, events that take place in an environment and the mental resilience one has. While cognition influences human attitude, its fluctuating nature allows for transformative interventions to reshape human perception.

Interpretation Analysis Conclusion

Goal of Investigation:

To investigate the evacuees' cognitions in an evacuation center which constitute their attitudes towards evacuation centers.

Sources of Evidence in Australia

For representational purposes only



Tathra Bushfire Evacuation Centre closes a new chapter of generosity "People have turned up from Canberra and Sydney with boot loads of groceries ... – unbelievable," Lisa says.

"What a wonderful community spirit, we have met so many wonderful people," Denise says.

https://aboutregional.com.au/tathra-bushfire-evacuation-centre-closes-a-n chapter-of-generosity/



'It's Like Prison': What Life Looks Like Inside An Evacuation Centre

tps://www.vice.com/en/article/epx8g7/flood-victims-say-life-inside-an-evacuationentre-is-like-prison "It was like prison," said Danny, a Murwillumbah resident, "It was a community-style, 'all walks of life' kind of prison setup with no security.

Sources of Evidence in Other Places

For representational purposes only

CPR News

At a Lafayette shelter, anxious Marshall fire evacuees worry and await word on their homes and futures

Volunteer Priyanka Harish, left, gives Sharon a slice of pizza at the YMCA Arapahoe Center, an evacuation center for those affected by the Marshall fire, in Lafayette, Colorado on Friday, December 31, 2021. Many being served at the evacuation center said volunteers were extremely helpful, kind and resourceful there.

https://www.cpr.org/2022/01/01/photos-at-a-lafayette-shelter-anxious-marshall-vacuees-worry-and-await-word-on-their-homes-and-futures/

Desert Sun.

For residents fleeing Southern California fires, evacuation centers can be 'jarring' yet 'reassuring'

https://www.desertsun.com/story/news/2018/11/10/southern-california-fires-red-cross-providing-reacross-state/1948767002/



Fire evacuees steer clear of shelters, seek isolation during pandemic

"Walking into it as an evacuation center was something else. You see evacuation centers on TV, but walking in was jarring. Thank God we have it, though."

Bryan Lewitt said a local Jewish Day School already burned to the ground, his daughter's summer camp was besieged and his brother's home was very close to being engulfed by flames. "But it was reassuring to walk into the shelter and see that the Red Cross is really working to provide comfort for people, the shelter is a very somber place, with many elderly and disabled individuals, but they are being provided comfort."



seuces from a wildfire rest
cots and warm themselves
fer blankets supplied by the
l Cross in the Taft Charter.
th School gymnasium in the
odland Hills section of Los
egles on Friday, Nov. 9,
8. Portions of Southern
florrial remain under siege
wo large brush fires are
attening numerous



Volunteers prepared sandwiches for first responders while others worked in kitchen to make warm meals for

"I'm camping in the Prius!" laughed Cheryl Jarvis, 69, as she rearranged the pillows in her Toyota Prius in the parking lot of the Vacaville Community Center. "It's not real comfortable, but I'm so tired it didn't matter."

_ .

Evidence of Issues

Cognition

EXPERIENCE

DESIGN 2022

Evacuees at the centers are aware of the amount of help they received from the community and showed their appreciation too. The grateful feeling in people might potentially spur people to be more resilient and positive in the evacuation center stay.

While most people had a preexisting mental image of the
evacuation centers from media,
the feeling when one is physically
in one can be very different. This
shows that the cognitive
understanding of a place is easily
changeable when one feel it
physically.

Some evacuees adopt a more positive outlook by seeking an alternative perspective in such desperate situations. To feel reconciled or just simply accept the situation seems to be the helpful attitude that generally maintain the mental wellbeing of the evacuees. However, this approach is unlikely to be found in younger people.

Conclusion

Most people have negative beliefs about an evacuation center, which even being described as "like prison".

However, The human cognition of a place can be overwritten by their physical presence in a place, events that take place in an environment and the mental resilience one has. While cognition influences human attitude, its fluctuating nature allows for transformative interventions to reshape human perception.

Interpretation Analysis Conclusion

Conclusions

People to People Interaction

While it is evident that the sense of community helped those in need to get through the crisis, there are many challenges faced by the evacuees during their interactions with others. Such problems include unfair treatments, social distancing from others and the difficult situation with animal handlings. The positive and negative interactions the evacuees have offset each other and eventually lead to a dull and unpassionate attitude towards an evacuation center stay.

People to Environment Interaction

The evacuees lack personal space, food, water resources, and the access to clean water, all these besides chaotic environment then potentially lead to health issues. As such, these undermine the attitude one holds during the maintenance stage of the evacuation center temporary stay.

Emotion

Most evacuees experience fear and anxiety because of uncertainty about property safety and future accommodation during the stay. While this is understandable from a disaster point of view, it affects human reactions and actions irrationally, in terms of evacuation, returning and future-planning decisions and attitude.

Cognition

Most people have **negative beliefs** on an evacuation center, which even being described as **"like prison"**. However, The human cognition of a place can be overwritten by their physical presence in a place, events that take place in an environment and the mental resilience one has. While cognition influence human attitude, its fluctuating nature allow for transformative interventions to reshape the human perception.

Areas of Issues

Increasing Fear and Anxiety

Most evacuees are unsure about their future outlook due to the damage and disturbance caused by the wildfire. Such uncertainty and insecurities lead to their increasing fear and anxiety during the stay in an evacuation center.

Lack of Social Interaction

Social distancing measures due to the COVID-19 pandemic leads to less communication and more isolation among the evacuees in evacuation centers. This potentially leads to mental and emotional distress in the evacuees.

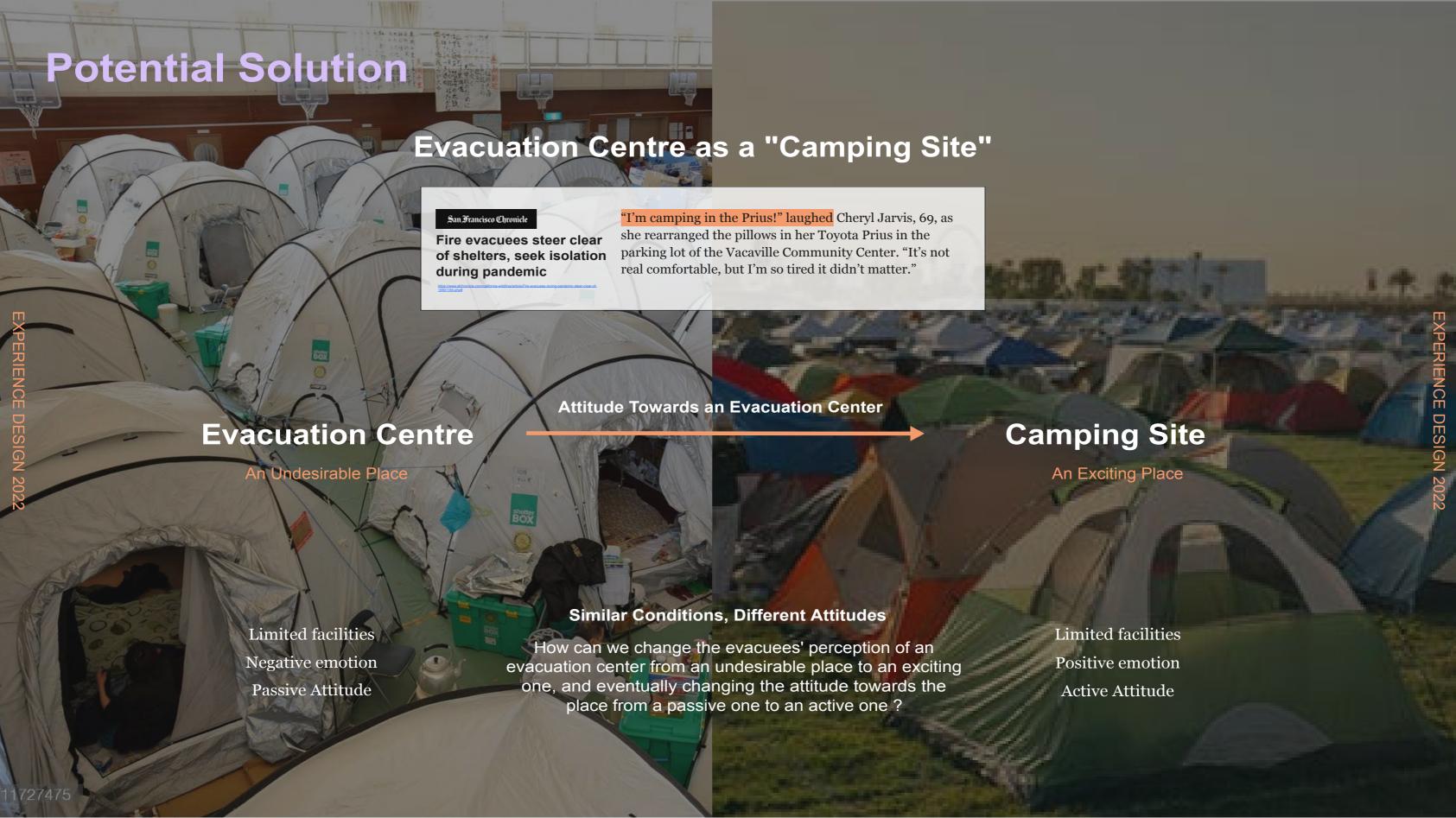
Negative Impression About the Center

While some of the residents remain optimistic during the stay, most of them hold unfavorable perception of an evacuation center. This is mainly due to the deeplyrooted negative connotation of such places and even exaggerated descriptions such as "prison-like".

Problem Statement

Residents in an evacuation center often experience fear and anxiety due to the uncertainty of their property security and future accommodation. At the same time, the reduced social interaction due to social distancing measures also make them suffer. All of these give rise to their negative impression of the place, and lead to a passive attitude towards the place.

EXPERIENCE DESIGN 2022



Significance

EXPERIENCE DESIGN 2022

Research Purpose

By analyzing the three aspects of attitude
 emotion, interaction and cognition, we
 aim to investigate the transformative
 potential of the evacuees' attitude
 towards an evacuation center.

For Main Users

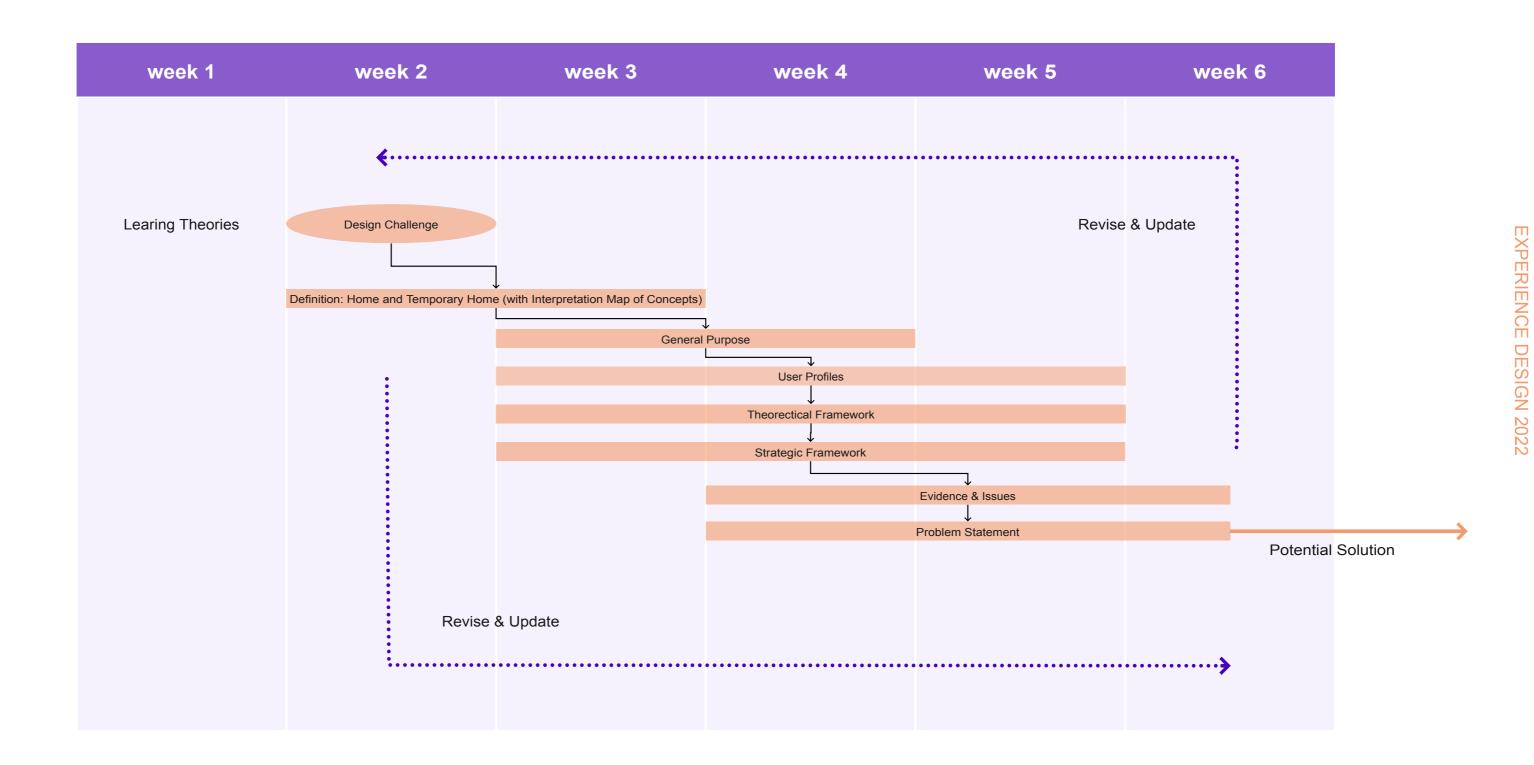
The outcome of the project should address the common negative emotions experienced by the evacuees - such as fear and anxiety. At the same time, the project also strives to improve the quantity and quality of social interaction the evacuees have.

Eventually, it is hoped that the evacuees' existing perception of the evacuation center as a 'prison-like' place could eventually shift to a more positive one, with an optimistic outlook on the life after evacuation center.

In a Larger Context

In a larger context, evacuation centers for different disasters and across different parts of the world are quite similar; and are organized predominantly by the same few NGOs. The project is likely to be capable of reproduction elsewhere. With that, we hope that this project can bring insights into how to create a better environment in future evacuation center designs.

Timeline



List of Literature

News and Reports

https://www.theguardian.com/australia-news/2019/nov/12/encircled-flames-sleepy-nsw-towns-bushfire-crisis

https://www.vice.com/en/article/epx8g7/flood-victims-say-life-inside-an-evacuation-centre-is-like-prison

https://www.cpr.org/2022/01/01/photos-at-a-lafayette-shelter-anxious-marshall-fire-evacuees-worry-and-await-word-on-their-homes-and-futures/

https://www.unicef.org/philippines/stories/child-evacuees-face-unseen-threats-after-typhoon-odette

https://aboutregional.com.au/tathra-bushfire-evacuation-centre-closes-a-new-chapter-of-generosity/

https://www.voanews.com/a/report-outlines-racism-toward-aboriginal-australians-during-worst-bushfires-on-

record/6532315.html

https://knowledge.aidr.org.au/resources/ajem-apr-2015-the-preparedness-and-evacuation-behaviour-of-pet-owners-in-emergencies-and-natural-disasters/

https://www.abc.net.au/news/2011-02-08/no-pet-evacuation-rules-putting-lives-at-risk/1935004

https://www.dailymail.co.uk/news/article-7668733/Club-serving-evacuation-centre-NSW-town-decimated-bushfires-REFUSES-let-

dogs-inside.html

EXPERIENCE

DESIGN 2022

https://www.pressdemocrat.com/article/news/public-shelter-space-limited-for-sonoma-county-wildfire-evacuees-during-pan/? artslide=3

https://www.newtimesslo.com/sanluisobispo/cal-fire-and-red-cross-rethink-evacuation-centers-base-camps-as-fire-season-collides-with-covid-19/Content?oid=10003953

https://www.thenews.com.pk/print/593562-shock-fear-and-sadness-grip-australia-s-bushfire-refugees

https://reliefweb.int/sites/reliefweb.int/files/resources/D66AEE7768867E49C1256C3A002CD1EF-ema-manual-1996.pdf

https://www.sfchronicle.com/california-wildfires/article/Fire-evacuees-during-pandemic-steer-clear-of-15501184.php#

https://aboutregional.com.au/tathra-bushfire-evacuation-centre-closes-a-new-chapter-of-generosity/

https://www.desertsun.com/story/news/2018/11/10/southern-california-fires-red-cross-providing-relief-across-state/1948767002/

https://www.sfchronicle.com/california-wildfires/article/Fire-evacuees-during-pandemic-steer-clear-of-15501184.php#

https://www.bbc.com/news/world-australia-50951043

https://naturaldisaster.royalcommission.gov.au/publications/html-report/chapter-12

Queensland Evacuation Handbook 2017, Australian Red Cross

List of Literature

Articles

Buchanan, Richard, "Surroundings and Environments in Fourth Order Design." Design Issues. Volume 35, Number 1, Winter 2019.

Dewey, John, "Having an Experience." In Art as An Experience. New York: Capricorn Books, 1958.

Eagly, A., and S. Chaiken. "Attitude structure." Handbook of social psychology 1 (1998): 269-322.

Goffman, Erving, "Facial Engagements." In Behavior in Public Places. New York: The Free Press, 1966.

Hall, Edward T., The Hidden Dimension. New York: Anchor Books, 1969.

Baxter, Kathy, Catherine Courage, and Kelly Caine. Understanding your users: a practical guide to user research methods. Morgan Kaufmann, 2015.

Williams R., "Dominant, Residual and Emergent" in Marxism and Literature, Oxford, 1977.

Spinoza B., Ethics: Preceded by On the Improvement of the Understanding. Ed. James Gutmann. New York: Hafner Press.

Others

EXPERIENCE DESIGN 2022

https://www.google.com.hk/search?q=home+dictionary+definition&rlz=1C1SQJL_zh-CNHK847HK847&oq=HOME+DIC&aqs=chrome.1.69i57j35i19i39j69i59j0i10l4j69i60.3334j0j4&sourceid=chrome&ie=UTF-8

List of Figures

| Figure 1: Interpretation of Design Challen |
|--|
|--|

- Figure 2: Timeline of the Project
- Figure 3, 4: Interpretation Map of "Home" and "Temporary Home"
- Figure 5: Visualization of General Purpose
- Figure 6: Concept Map of Theoretical Framework
- Figure 7: Concept Map of Strategic Framework
- Figure 8: Map of Major Bushfires in Australia
- Figure 9: Name of Emergency Facilities in Australia
- Figure 10: Basic Functions of Evacuation Shelter Layed Out by
- the Red Cross Australia
- Figure 11,12,13: User Profiles
- Figure 14: Evidence Map of People to People Interaction
- Figure 15: Evidence Map of People to Environment Interaction
- Figure 16: Evidence Map of Emotion
- Figure 17: Evidence Map of Cognition
- Figure 18: Conclusions to Areas of Issues
- Figure 19: Areas of Issues to Problem Statement